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FLYING CREEK

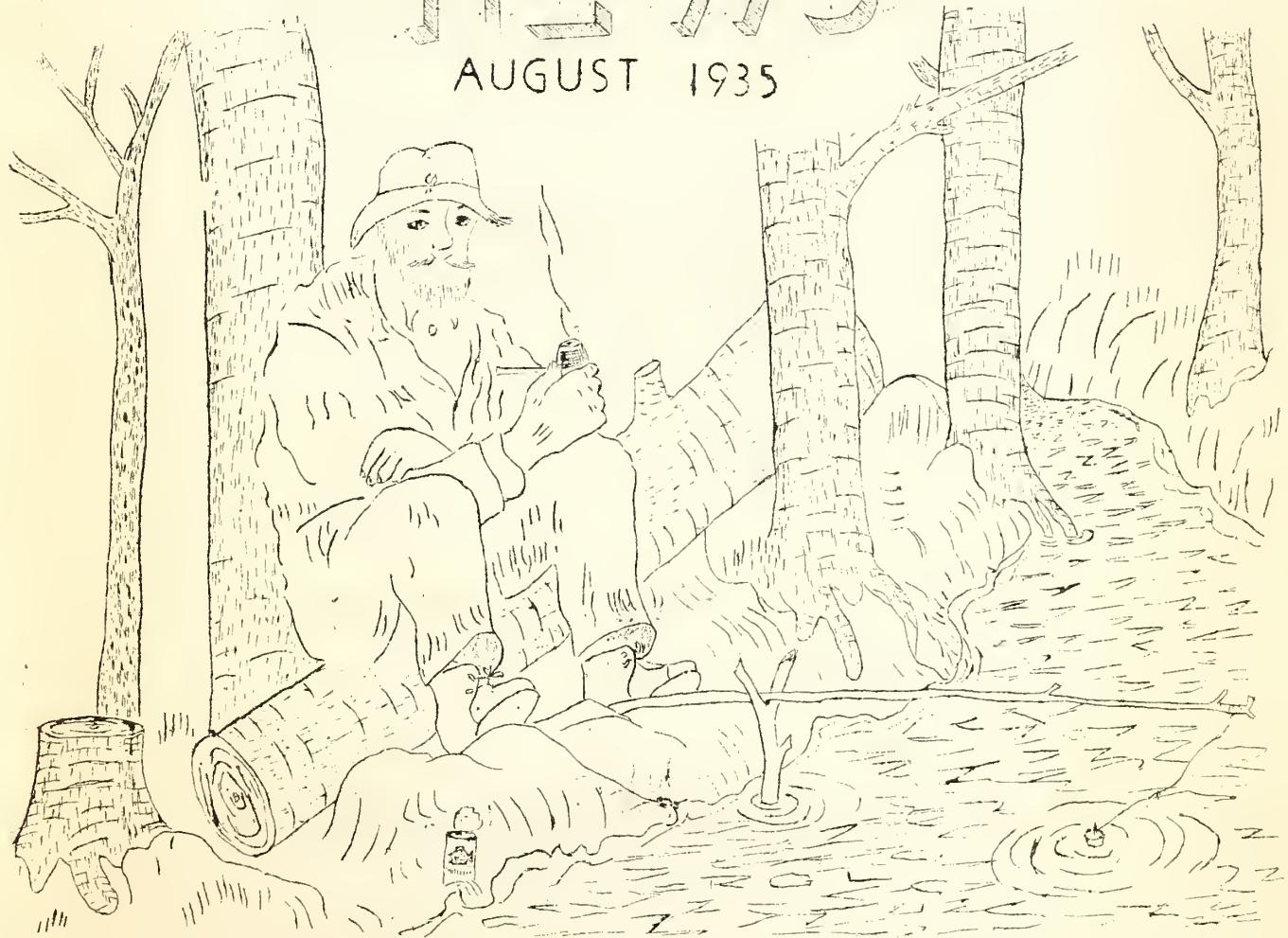
PROJECT 30

ROCK HILL, S.C.



FLYING CREEK

AUGUST 1935



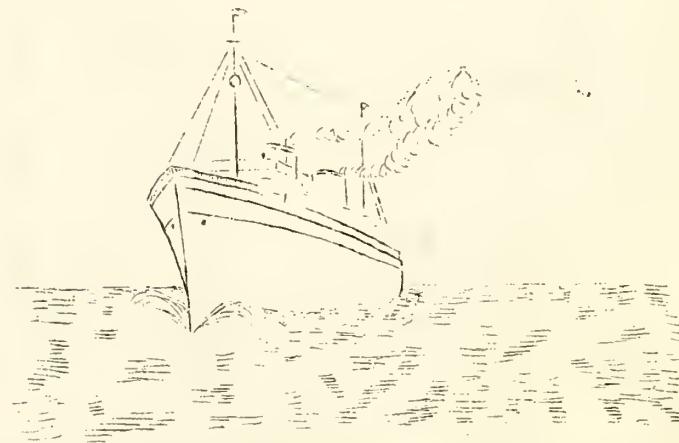
"KEEP THE GOOD LAND GOOD"

STOP!

THINK!



YOUR SHIP WILL COME IN



WHEN YOU HAVE COOPERATED
FULLY WITH THE
Soil Conservation Service

FISHING CREEK NEWS

Dr. T. S. Buie, Regional Director, Spartanburg, S. C.
Mr. A. F. Ruff, Ass't Regional Director, Rock Hill, S. C.

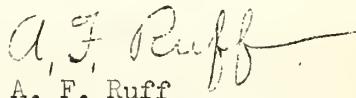
LET US TRULY COOPERATE

The members of our staff are very happy indeed to get back to work. Cooperation is a wonderful thing, and after all, in almost any enterprise the degree of success depends upon the ability to cooperate.

The very splendid series of articles in the Yorkville Enquirer written by Mr. Albert M. Grist and the recent cooperation of the Evening Herald and the people of Rock Hill in publishing a very commendable edition are splendid indications of the willingness of York County to cooperate with the farmers of this county.

I have nothing but praise for the cooperation that has been extended us by the farmers of the Fishing Creek Area. I would suggest, however, that whenever occasion arises, you cooperators take advantage of an opportunity to show others what you and we are doing in our Project Area.

Should we make mistakes, and doubtless we will, please tell us first. LET US TRULY COOPERATE.


A. F. Ruff
Assistant Regional Director

Published by The Soil Conservation Service
U. S. Department of Agriculture
Rock Hill, South Carolina

DID YOU KNOW?

That at least 25,000,000 acres of formerly cultivated land in this country have been essentially ruined by gullying.

That between 4,000,000 and 5,000,000 acres of bottom land have been despoiled by overwash and increased swampliness resulting from eroded matter being washed down on them.

That gullying occurs in every state in the Union.

That certain Piedmont areas have, within a period of thirty years, lost their topsoil entirely, 10 inches or more of loam and clay loam having been washed off to the clay subsoil; and on this clay subsoil, substituted for the departed soil, from 400 to 600 pounds of fertilizer are required to produce as much cotton per acre as was formerly grown with 200 to 250 pounds of fertilizer.

That not less than 120,000,000,000 pounds of plant food material are removed from the fields and pastures of the United States every year.

That it would take \$2,000,000,000 annually to replace these plant nutrients.

That the amount of phosphoric acid, nitrogen, and potash alone in this annually removed soil material equals 54,000,000,000 pounds.

That soil loss by erosion has reduced yields from one-half to one-tenth of former production per acre in our country.

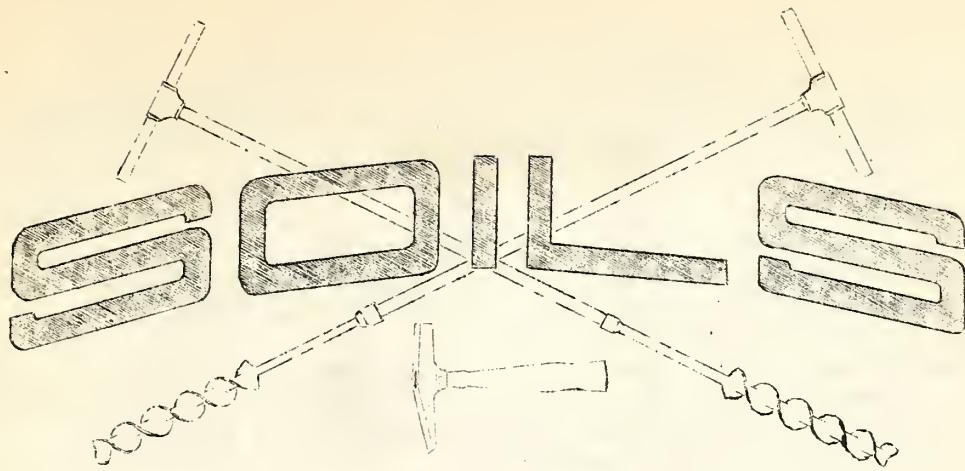
That the equivalent of a quarter of a million farms of about 160 acres each have been abandoned as a result of Soil Erosion.

That within one county in the Piedmont section of South Carolina ninety thousand acres of formerly good upland has been ruined by gullies.

That within this same county 46,000 acres of bottom land, once the richest soil in the state, has been so covered and otherwise damaged by deposits from upland farms that it is now practically of no value.

That within the United States, 500 tons of suspended material are carried into the sea annually and that twice this amount is deposited in the stream beds and lower slopes.

That a well kept forest is the best of soil holders.



A WORD ABOUT SOILS

By - Frank T. Ritchie, Jr.

The Soils Experts on the Fishing Creek Area have completed the Erosion Survey. The Survey covered a complete detailed mapping of the woods and open land on 49,055 acres or a total of 415 different farms. In making this survey we covered all land in the area and mapped it very much in detail in reference to slope, erosion, soil type, and culture. This might well be spoken of as an inventory of the land, for that is what we actually have on the completed survey.

In this publication we are including two of the remaining soil types found in the Fishing Creek Area.

DAVIDSON CLAY LOAM

(Symbol D) This is locally known as "push land" or "red sticky land," because of its failure to slip on the plow. The surface soil is a dark reddish-brown, mellow clay loam. The subsoil is a deep red or maroon red, smooth compact clay.

This soil is developed on ridges and both surface and internal drainage is good. It is derived from dark colored basic rocks such as diorite and horn blende schist.

Large gullies are not common on cultivated areas of this type, though observation indicates that gullying occurs when the land ceases to be cultivated unless it is put into trees or grass for protection.

Sheet erosion has been very active on the Davidson Soils and practically the entire area has lost most, if not all, of the surface soil.

Davidson clay loam is not as well suited to cotton under boll weevil conditions as are the Cecil soils. It tends to be slow and late in maturing the crop and produces a large wood with dense foliage which encourages weevil development. It is well adapted to corn, small grain, and is the best soil in the tract for alfalfa, peaches, grasses, clovers, forage crops.

Rotations should include a large share of grains and other close-growing crops and a minimum of cotton. It is recommended that alfalfa be grown in permanent strips around the contours on this soil for the purpose of slowing up sheet erosion.

MECKLENBURG SOILS

The Mecklenburg soils came from similar rocks as both the Davidson on the one hand and the Iredell on the other. They represent an intermediate state of weathering and soil development. They consist of dark brown to reddish brown surface soils, with brownish red to yellowish red heavy, stiff, plastic clay which grades into a reddish-yellow, plastic clay in the lower subsoil which is lighter and more friable than that above.

The surface soil for the various textures will vary as follows:

Mecklenburg fine sandy loam - (Symbol MF): Dark brown to reddish brown fine sandy loam, 6 to 10 inches deep.

Loam (Symbol M): A brown or reddish brown loam, 6 to 8 inches deep.

Clay loam (Symbol MC): A reddish brown clay loam.

The fine sandy loam and loam are adapted to a greater range of crops than is the clay loam.

The topography is intermediate between that of the Davidson and Iredell being somewhat rolling and gives good surface drainage. Internal drainage is retarded due to the plastic nature of the subsoil, though it is not as poorly developed as the Iredell. Erosion has been quite severe on these soils, particularly sheet erosion. Gullying has developed in some places.

The Mecklenburg soils are suited to corn, cotton, small grain, and forage crops. On the better drained areas, alfalfa would probably succeed though it is best suited to general farm crops.

Worsham Sandy Loam

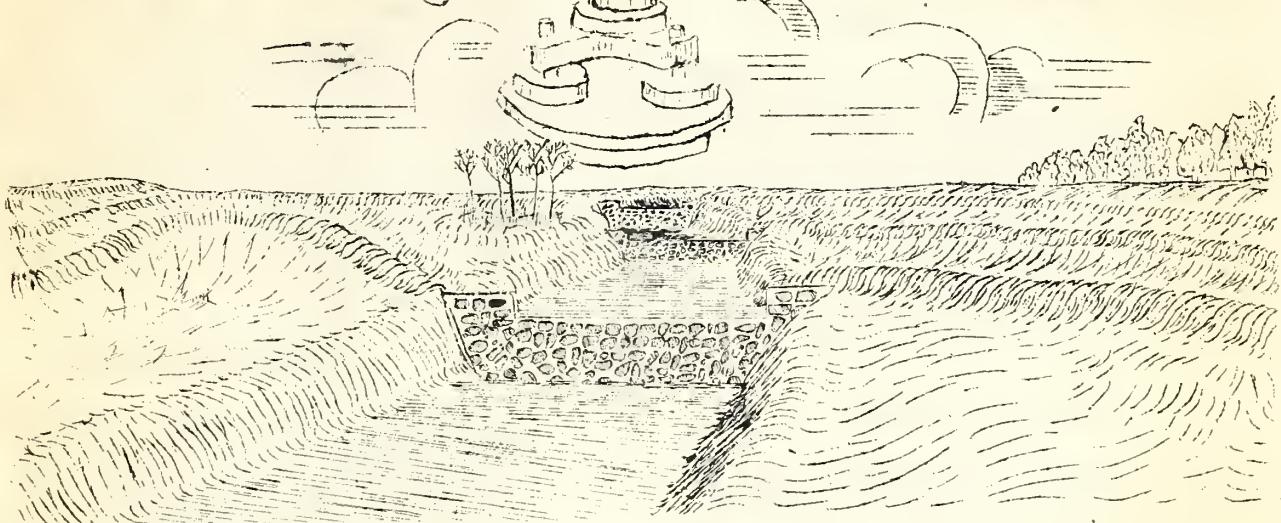
(Symbol Wo): Worsham sandy loam has a gray to dark gray surface soil, 4 to 8 inches deep, underlain by about 12 inches of light gray sandy loam. The subsoil is variable. Typically it is a gray heavy clay with yellow and bluish gray mottlings. In places it varies from almost gray to yellow.

This type is usually poorly drained and contains numerous wet weather springs.

It lies at the base of slopes near the heads of branches of small streams where it receives seepage waters from higher lying areas. This soil has had comparatively little erosion but rather has had accumulations of materials washed down the slopes.

Worsham sandy loam is not suited to cultivation as a rule, and should be used for pastures. This type occurs in small areas throughout the tract.

ENGINEERING



FARM PLANNING

By - J. M. Downing

At the beginning of each cropping year, every farmer plans the crops to be grown on his farm for that year. Why not look more than one year ahead and map out a course to be followed for several years that will provide a well-rounded farming program and more income for farmers? Since farming is a business; why not follow the same principle that a business organization follows? When a piece of land is bought for a factory, a development plan is drawn up that may cover anticipated expansion for 50 years or more, and as time goes on and buildings are added, everything goes into its place as previously planned. If such planning is neglected and the buildings are added unscientifically, convenience and economy of production will be lacking. Farming is the farmer's business and best results can be gained only by proper planning. Conserving the soil, constructing fences and farm buildings, developing pastures, and putting lands not suitable for cultivation into

trees should be the ambition of every farmer who desires more income from his farm.

Conservation of the Soil

When beginning to draw up farm plans, the conservation of the soil should be the first problem considered. A farm without good soil is a liability instead of an asset. Therefore, terracing, strip-cropping and other methods of erosion control should be worked out before anything else. Of course, terracing a whole farm in one year may be too much of a job, but it can be carried on systematically by terracing a field or two every year until the whole farm is terraced.

Unless the field is isolated and the disposal of water will not effect other fields, the plan of terracing should be planned for the whole farm. In many cases it will be found that the water from two fields can be handled

with one waterway constructed between them, resulting in considerable savings in the cost of construction and maintenance.

Outlets and waterways are of prime importance, and their correct construction is essential to prevent gullying from water coming from the terraces. Rock masonry structures should be placed at the end of terraces and rocks are easily available for this purpose on most of the farms of the Piedmont section.

Fencing, Livestock

Consideration should next be given to the fences to be built. Without well fenced farms, a great many avenues of income are cut off from the farmer. With good fences the neighbor's stock can be kept out of the fields during crop times or the months when the land is too wet to have stock on it. Fences allow the growing of livestock which will not only give the farmer another marketable product, but will help in keeping land fertile.

When livestock is on a farm, all meats for the table can be raised and canned or cured with very little cost. At the present cost of meats, compared with that of cotton, it is not profitable to use money from

the sale of cotton to buy meats.

Fences should be run on the contour where possible. If this practice is not followed, the ground along the fence will be higher than the ground a few feet away, caused by the breaking of the land from the outside. This ridge along the fence will form a ditch just above it and carry the water off at too great velocity and in time will cause gullying.

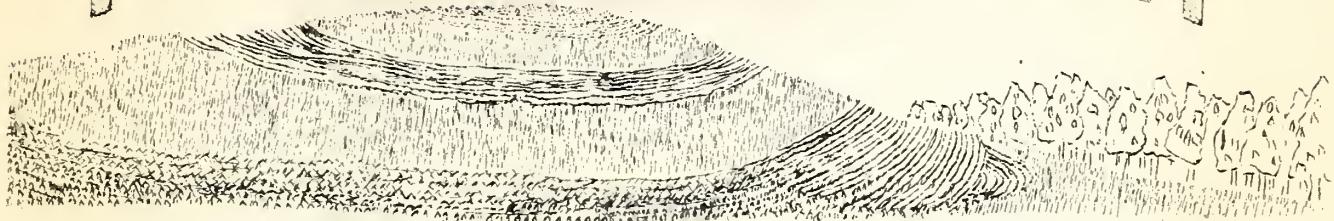
Pastures and Woods

Sources of water supply, pastures, and woods have to be considered in a program of this kind. The latter two develop slowly and should be started from the first. A few acres may well be set out in locust trees to provide posts for fencing the pastures. Considering the fact that posts constitute half the material cost of fences, a considerable savings can be had by growing the posts on land unsuited for any other purpose.

By beginning and developing a program of this kind on a farm, the farmer would have a live-at-home program where the products sold would, after harvest, be largely dobit, changing the color of his ledger from red to black.

"KEEP THE GOOD LAND GOOD"

FARM MANAGEMENT



OUR VALUABLE TOP SOIL

By - Hugh A. Brown

If you plan to buy a farm, it would pay you to go over the farm carefully and determine the types of soil and the depth of the top soil. Upon these two things more than anything else depends the potential value of your land.

In an address delivered before the North Carolina Farmers' and Farm Women's Convention at Raleigh, July 9, 1931, Mr. H. H. Bennett, now Chief, Soil Conservation Service, said:

"The Federal Land Bank of Houston, Texas, lends on the basis of the top six inches of soil representing the farmer's principal capital. If the bank discovers that the farmer is permitting his fields to wash at a rate faster than six inches in thirty-five years, on a thirty-five year loan foreclosure proceedings ensue."

The bulk of our available plant food is contained within the shallow layer of top soil. Some crops that we grow in this section draw faster on certain plant foods than others, but these deficiencies can be partially supplied in the

form of commercial fertilizers at relatively small expense.

It has been estimated by good authorities that erosion in America takes twenty-one times as much plant food from our land as is removed by crops. If erosion is permitted to continue, it will be impossible to replace the plant food lost because with the plant food goes our most priceless possession -- our valuable top soil. It takes nature not less than four hundred years to build an inch of top soil on some of our valuable types of soil, but through erosion some of our fields have lost as much as an inch of top soil in one year.

We all farm for money, and if we cannot make it, we are headed for poverty. What can we do to stop this loss? Here are some of the things that we can do: rotate our crops, reforest, grow cover crops, turn under green manure crops, and prevent fires. Concerted action is necessary. We must do our part to prevent the loss of our valuable top soil.

THE VALUE OF LEGUMES TO THE FARMER

By - O. S. Poe

Why pay high prices for nitrogenous fertilizers when the air is full of it? The legumes manufacture many pounds of nitrogenous content for the soil per acre and costs the farmer very little. Yet legumes serve a secondary purpose that might well be said to be primary in importance, that of conserving the soil.

The Soil Conservation Service is making every effort, through the good cooperation of the farmers, by

means of strip rotation of close growing crops and a system of terraces to hold the soil in place, to increase soil fertility. The Bankhead Bill is giving the farmer a wonderful opportunity, by decreased cotton acreage, to establish strip-cropping and rotation with leguminous crops. By increased production and greater income from such a practice, we believe the farmer will continue such methods of conserving their soils.

A FOUR YEAR STRIP ROTATION

By - Hugh A. Brown

An excellent rotation that would be suited to our tenant system of farming in the Fishing Creek Area would be a four year strip rotation of cotton, cotton, grain with lespedeza, and grain with lespedeza. That would mean that fifty per cent of the land in that rotation would be in cotton and fifty per cent in grain annually with two crops of lespedeza to build up the land and to hold the soil. Lespedeza sown on the small grain

the first year would reseed the second year, provided the land was disced and plowed so as not to turn the stubble under before oats are sown the second fall. The advantage of this rotation would be that the land would be covered three winters out of four. Likewise, economy is a factor. Lespedeza, if left to reseed the second year, will always do better. (Still better the third year.)

"KEEP THE GOOD LAND GOOD"

FORESTRY

PLAN FOR THE FUTURE

By - J. F. Cole

Soil conservation is a step forward in the history of the United States in that we are trying not to duplicate the fate of some of the oldest countries in the world. We have all noticed the headlines in the papers these past few weeks telling us of parts of the Far East. These floods are attributed to the denudeate hills of these countries.

These lands have been farmed for many years without any means of taking care of the water, and then, during the rainy season the runoff is so great that these disastrous floods result.

Although in this section we are starting late, we can, by careful planning and by adhering to this plan, prevent such catastrophes as occur yearly in the Far East, and at the same time so improve our farm land that a better and easier living can be made from the farm.

We must stop living in the past and begin living for the future, -- not only for our future, but the future of the generations to come.

Every day we hear people say, "I used to make a bale of cotton to the acre on that field." By using good farming methods and controlling erosion, you should be able to say, "I am making a bale of cotton to the acre."

Plan your farm and use each acre for that which it is best adapted. Have your steep slopes planted either to some permanent hay or pasture crop or in trees.

Your woodland should be considered a crop along with the other yearly crops on the farm. Have your woods so planned that a certain per cent may be cut each year for lumber, firewood, etc. This would be your yearly wood crop and should be taken care of at harvest time just as any other crop.

"KEEP THE GOOD LAND GOOD"

1934 - 35 Plantings

By - John Fry Cole

The 1934-35 plantings have done excellently so far this summer. We have about 95 per cent survival on our plantings with good growth on all plants.

The loblolly pines we planted have made several inches growth, besides getting firmly established. Some of the black locust planted in March have made five feet of growth this summer and on the poorest soils we

planted. These trees in a few years will be large enough for posts, besides the purpose they are now serving of holding and healing these baro galed sites.

The farmers on whose land plantings have been made should make every effort to protect these young trees because of their present and future value.

Slash Pinc

By - John Fry Cole

Pinus Carriabea

The slash pine is out of its range in this area, but since we have planted some of this species, and expect to plant some more here, a description will not be out of order.

The bark on mature trees is divided into three irregular dark red brown scales.

The leaves grow in clusters or bundles of two and three, usually with more of the two-leaved clusters. They are stout, rich green, 8" to 12" long.

The height range is between 80' to

150'. The range of the slash pine is from lower South Carolina westward to the Mississippi river.

Slash pine is one of the fastest growing and earliest maturing forest trees. Height growth is very rapid the first few years of life.

It is valuable for saw timber, and being a dual purpose tree, it ranks high in the turpentine industry. Slash pine will be a valuable addition to the forests of this section.

REMEMBER, MR. FARMER, DO NOT CUT PINE UNTIL AFTER OCTOBER AND KEEP OUT BEETLE INFESTATION.

"KEEP THE GOOD LAND GOOD"

WHAT OTHERS SAY

Dear Mr. Ruff:

My first contact with the Soil Erosion Project on Fishing Creek was on yesterday afternoon and when I started out on the tour I had expected to be surprised and I want to say that my expectations were more than exceeded. I think it is the most constructive piece of work that the government has ever done for the farmer and the landowner and any farmer who is eligible for this work and does not go into it, I think is very foolish and depriving himself of the benefits that he himself could never replace. The benefits to be derived from terraces and drains of course is visible right now and no doubt will be of untold value to the immediate crop but it seems to me that the good results will continue and accumulate over the succeeding years. The one thing that struck me most forcibly was that you have taken the cultivated land that has been under cultivation for years and in a half fashioned way and at enormous expense with very little results and planted this land in trees which not only will stop the erosion but prove profitable in years to come from a timber crop.

As I said before I am very enthusiastic about the whole Soil Erosion Project and I cannot say too much in praise of the same. My only regret is that this class of work is not being done on my own farm.

Yours very truly,

(Signed) L. D. Pitts, President
Industrial Cotton Mills, Co., Inc.

Dear Mr. Ruff:

I want to take this time to tell you how much I enjoyed the tour over a part of the Fishing Creek Area. It is a most wonderful work, and to my mind so much more important than some of the work that the government has been doing in our section. If that wasted effort which has been used to bruise leaves over and over again could have been put in similar projects all over this country, I believe that we would be able at a lower price to produce our various commodities and to give employment to more people, due to the possibility of a broader market. A wornout cotton mill or a wornout farm cannot compete in the markets of this country much less in a world market. We must use our resources, ingenuity and intelligence to produce and compete, and then we will begin to solve the unemployment problem. For after all that is said and done, unemployment is our problem.

Please accept my thanks for your kind invitation and the pleasure and education that you have given me.

Sincerely yours,

(Signed) D. W. Hunter, President
Arcade Cotton Mills

UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ROCK HILL, S. C.

Penalty for Private
Use to Avoid Pay-
ment of Postage
\$300.00

OFFICIAL BUSINESS

FLASH

This is the last issue of the FISHING CREEK NEWS. Hereafter this publication is to be consolidated with the News Letter of Spartanburg, South Carolina.

Any of you who wish to have this new publication, please send in your name and address at once so that it can be placed on the permanent mailing list.